

AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the present application:

Listing of Claims

1. (Currently Amended) A system to reduce a data error rate associated with a signal received by a wireless communication device comprising:
 - a first antenna configured to receive a signal;
 - a second antenna configured to receive the signal, the second antenna configured at least partially orthogonal to the first antenna;
 - a first amplifier coupled to the first antenna and configured to amplify the signal received by the first antenna;
 - a second amplifier coupled to the second antenna and configured to amplify the signal received by the second antenna;
 - a single switching element coupled with the first and second amplifiers, the switching element responsive to one or more control signals and configured to selectively provide either the signal received via the first antenna or the signal received via the second antenna to a processor; and
 - a processor coupled with the first and second amplifiers and the switching element, the processor configured to:
 - determine an error rate associated with the signal₁ and
 - generate one or more control signals when the error rate exceeds a threshold for a set period of time₁

control the first and second amplifiers such that the signal from both antennas is initially provided to the processor,

lower the gain on the first amplifier until no signal is received from the first antenna; and

simultaneously raise the gain on the second amplifier as the gain on the first amplifier is being reduced and as the switching element is switching from the first antenna to the second.

~~a single switching element, responsive to the one or more control signals, configured to selectively provide either the signal received via the first antenna or the signal received via the second antenna to the processor.~~

2. (Original) The system of Claim 1, wherein the switching element comprises a voltage controlled switch.
3. Cancelled
4. (Original) The system of Claim 1, further including a first amplifier located between the first antenna and the switching element and a second amplifier located between the second antenna and the switching element.
5. Cancelled
6. (Currently Amended) A method of switching between a signal received over a first antenna or a second antenna by switching between the first antenna and the second antenna comprising:
 - receiving a signal with a first antenna;
 - determining an error rate of the signal;
 - comparing the error rate of the signal to a threshold;

determining a time duration that the error rate exceeds the threshold;

generating a control signal when the error rate exceeds the threshold for a set period of time, wherein the control signal determines whether the signal provided to a receiver is received over the first antenna or the second antenna;

providing the signal received over the first antenna or the second antenna to the receiver based on the control signal; and

providing the control signal to one or more amplifiers, wherein the control signal controls a level of amplification of the signal received over the first antenna and the second antenna;

slowly decreasing the amplification of a first amplifier coupled to the first antenna, while simultaneously slowly increasing the amplification of a second amplifier coupled to the second antenna.

7. (Original) The method of Claim 6, wherein comparing the error rate of the signal to a threshold comprises comparing an average error rate of the signal over a period of time to a threshold.
8. (Original) The method of Claim 6, wherein the error rate comprises an error rate selected from the group consisting of bit error rate, symbol error rate, and signal to noise ratio.
9. Cancelled
10. Cancelled
11. (Currently Amended) The method of Claim 406, wherein the steps of decreasing and increasing are performed over a period of time greater than or equal to two milliseconds.

12. (Original) The method of Claim 6, wherein the method occurs within a wireless communication device.

13-17. Cancelled

18. (Previously Presented) An apparatus for switching between a first input and a second input within a wireless communication device configured to received a signal comprising:

a first conductive path having a first amplifier and first output;

a second conductive path having a second amplifier and second output, wherein the first output and the second output are connected to a node; and

a processor configured to receive a signal from the node and present control signals to the first amplifier and the second amplifier, wherein said control signals selectively and slowly enables or disables the first amplifier and the second amplifier.

19. (Original) The apparatus of Claim 18, wherein the node comprises a resistive network.

20. (Original) The apparatus of Claim 18, wherein the node comprises a switch.

21. (Previously Presented) The apparatus of Claim 18, wherein the first conductive path connects to a first antenna and the second conductive path connects to the second antenna and the first antenna is at least partially orthogonal to the second antenna.

22. (Original) The apparatus of Claim 18, wherein the first amplifier and the second amplifier amplify the signal prior to the signal arriving at the node.

23. (Currently Amended) A system for improving reception performance of a wireless communication device comprising:

means for receiving a first signal;

means for receiving a second signal, wherein the means for receiving the first signal and the means for receiving the second signal are at least partially orthogonal;

means for amplifying the first signal;

means for amplifying the second signal;

means for processing configured to analyze the first signal and the second signal and, responsive to the analyzing, generate a control signal when an error rate associated with the first signal or the second signal exceeds a threshold value for a set period of time; and

means for providing, responsive to the control signal, either of the first signal or the second signal to the means for processing by slowly reducing amplification provided by the associated amplifying means of the signal not being provided and slowly increasing the amplification provided by the associated amplifying means of the signal being provided.

24. (Original) The system of Claim 23, wherein the means for processing further comprises means for comparing an error rate associated with the first signal or the second signal to a threshold value.

25. (Previously Presented) The system of Claim 24, wherein error rates above the threshold value for a set period of time cause the means for processing to generate a control signal.